AROUND THE WHIST TABLE. GREAT CHANGE TAKING PLACE IN THE MINDS OF WRIST PLAYERS,

Growth of the Idea That Common Sense Rules in Whist as Elsewhere Further Consideration of Trump Leads,

Those who are closely observing matters in the whist world cannot, fall to see that a remarkable and universal change is now going on a change in the minds of the men who play the systems they adopt, the one, indeed, being a necessary consequence of the A few years ago it was all long suits. American leads, and private conventionalities of every description. To-day it is common sense, playing to the drop, and taking advantage of averable positions.

All changes necessarily entail a certain ament of confusion and inconvenience. You cannot remodel or take down an old building replace is with something better without having a fearful mess during the transformation. Business is interrupted, stock and paare in confusion, no one knows where to he he hands on anything, and makeshifts of various kinds must be continually resorted to, water it is all over some conservative eld fegies will fasis; that the old building was note convenient or better suited to its purposes than the new ; but the great majority Il agree that it is best to take advantage of the improvements suggested by modern experience and investigation.

The game of whist in America is being re-

Men of intelligence are tired of the old pip counting game which, required them to walk up stairs one step at a time to get at the location of the small cards in a worthless suit. Ther are tired of reering round in nark corers with lucifer matches and gas jets, hoping to discover their partner's card of re-entry. That are tired of the old-style stoves in which tricks were burned up by the thousand by leading away from tenace suits, and by kill ing partners' kings. They want elevators that will take them to the vital part of the hand at once. They want electric lights, that will show them last how strong or weak their partpers are. They want steam heat, that will conomise us per cent, of the trick-taking posshilltles, of their hands, instead of allowing 40 per cent, to re up the chimney in smoke, and er cent, more to lie round in the dust and she of post mortems. What they want they I have, even if they do suffer a considerable smount of inconvenience while the change is

The trouble with most persons is that they to extremes. The thrifty German who has ide a fortune while living in two rooms over beer saloen builds himself a house that could aly by a person who had been luxury from his carliest years, prize fighter puts on clothes been wall good appear in to his is the great trouble with rebuilding their game of whist, itenting themselves with the old incleetric lights, elevators, and they have ripped up the whole now find themselves confused and by their new surroundings. From a lead of the longest suit they at once to the invariable lead of only to find that they do not univer. They are like the guests at 'A Texas Steer,' who drink out glasses or the finger bowls, bedont understand the uses of are new to them. enjoyed only by a person who had been

or glasses or the finger bowls, bede not understand the uses of
heare new to them.

by The Sux two weeks ago, it will
he The Sux two weeks ago, it will
he the successor of the successor of hards from which a short-suit
probably be advantageous. Many
porties have already formed and
heir continons on the subject, but
are absolutely worthless from a
androint, simply because they are
continons. Systems liased on imtime been the hane of whist. It was
continon that the call for trumps
ly improve whist. Experience has
it was the beginning of the system
done more than anything else to
me. "Cam" thought that by leadst but one, when holding no honor
he could give his partner valuable.
This was the beginning of the
mate and the fourth-best, which
ed the, adversaries to steal more
cond-hand dnesses than anything
grame. Messon thought that by
leads from high cards, in order to
imber of small cards in the suit, a
tage would be given to partner by
a to court the hands. This was the

ad in the plain suits This the the liamiltons the champion-many other matcher it has the impossible to say. George the interest of the limit of the large one since abandoned it, the still thinks it a good thing, is are more crochets, based on which have no foundation. ork still thinks it a good thing, are nere crochets, based on which have no foundation in which have no foundation in which have no foundation in which have no from a complete the saving: "In 5,000 control which have been accounted that have been accounted that number one, I consider it a mistake to a the combination." Such a don such facts, would be encoughteration; but for a person in three hards in forty-eight uight the turn-up trump if his heavily it, and from his obserthred instances to jump to the a system of signalling to partural an honor turned would and straightway to rush into ad to get thousands of whist it may gownel, is abound. Still for a player to upset the enorthchies of leading just to are with will be three times and which will be three times an were gained by catching.

Slaty years ago it was the to lead through an honor by signal. After a few milgen lost by the practice, it it has lately been revived in redevices for losing tricks and.

her suit not also or equally long. That addition only: he brings forward no facts for it. Others say the long suit should hel unless it colitains a sequence of at bree high cards; and they in turn are dicted by those he say a long suit should help the long suit should be allowed by those he say a long suit should be riside. It is all theory. Those who the Albany lend say the short suit or the rad should never be led except to be four trumps in the leader's hand. High says it is best to open the longest ways, leading the top of it if it is weak, waiting developments, hoping to selze be observed for the rad should never be led except to be made by nood openings as by good s. All these state ments are merely exact of condens there are no facts of sufficient of the rad should be sufficient to be made by nood openings as by good s. All these state ments are merely exact of condens there are no facts of sufficience which The Sin draws from all the fact of any theory. Inference which The Sin draws from all the cent after 150 years observation, d. and theoreting on whist, we know easily nothing about the game. The congress and slorious opportunity for the players of America to do what has never some before—to collect facts, thousands un, and then to analyse them and reason them. Any person of leisure may imilize himself if he will take the trouble to 1000 hands at whist, turning up a trumph, and writing down the various combina-

tions held by the different players. It would then be in order to pick out each of the thirty.

tions held by the different players. It would then be in order to pick out each of the thirty-two combinations of cards which a player may hold, as given in the "Whist Manual," p. 21, and to no a the number of times certain distributions of the cards occur in the other names. Let us success it was found that in 1,200 cases in which the leader held king and small cards of a plain suit, and less the small card, the alversaries won seventeen hundred tricks and the leader's side won a thousand; would not that be of more practical value than a dozen theories based on individual opinion?

Many of the principles of whist lie well within the province of mathematical demonstration, and the average distribution of the cards in individual suits can be found by calculation. It has repeatedly been proved that the average expectation in any plain suit is only two and a quarter tricks. The player who can so manage his cards as to have the chances in his favor for making three should play at a great advantage. On the same principle it should be true that one who could so play as to make it improbable that his adversaries would get more than one or two tricks in any plain suit, would derive great benefit from such a system.

Many persons seem to play on the assumption that they may make three or four tricks out of a plain suit in almost every hand. Take the match for the Hamilton trophy at the fifth congress, and count up the number of tricks won in plain suits, of which 288 were opened. The number of times any given number of tricks won in plain suits, of which 288 were opened.

umber of Suits Led.	Tricks Won.	Totals
46 140 70 28 8	None. One. Two. Three. Four. Five.	948 948 928 119 40
288		668

Only once in ten times were four tricks taken in a plain suit, and only once in twenty-eight times were the four tricks taken by the same partners. If, instead of reaching after four tricks in one suit every deal, players would confine their attention to getting two or three, they would find their efforts much oftener crowned with success. The Sux proposes in some future articles to set forth the combinations in which tricks are usually lost, and to show how they might be managed to better advantage.

ON LEADING TRUMPS.

ON LEADING TRUMPS.

The articles of the last two weeks have brought to THE SUN from all parts of the country examples of hands in which great changes were or might have been made in the score if the leader had started to play for his long suit by getting out the trumps first. Here is one which was No. 4 in the compass match at the New York Whist Club, Dec. 23. One table made seven tricks with A-Ps cards, the others made six; but there were twelve tricks in it. A-B are partners against Y-Z. Z. dealt and turned the heart P. The underlined card wins the trick, and the card under it is the next one led:

TRICK.		Y	В	z
1	Κo	30	40	50
2	100	6 0	▲ 6	♥3
3	2 4	J .	A .	5 .
4	V 5	V 2	OA	0.6
5	4 .	04	♥K	♥ 7
6	45	OG	OJ	0.0
7	47	3 •	6 .	9.
8	20	70	7 .	K.
9	8 0	90	8 .	Q.
10	JO	4.9	♥10	10 ●
11	A A	\$10	4 4	4 J
19	AO	♥8	4 2	♣ 8
13	Qo	♣ K	43	A Q

A-B make six tricks.

Trick 3. Z leads a small card, hoping his partner can get in and give him another force. Here is what might have been:

TRICK.	Α .	Y	В	z
1	♥ 5	V 2	♥10	ФЗ
2	2 4	04	♡ K	Φ 6
3	4 5	08	OA	♡ 7
4	4 7	OO	O 1	09
B	4 .	J	A .	5 .
6	100	30	40	50
7	AO	60	42	10 .
8	KO	70	43	9 4
9	QQ	90	4 4	48
	JO	3 .	46	& J
1	80	49	6.	A Q
	20	& 10	7 .	Q.
8	A A	4 K	8 .	K.

Trick 1. A argues that his chances would be greatly improved if he and his partner could exhaust the trumps. If trumps cannot be get out, A will have to run for it later, and must trust his partner to stop the spades, the chances being 13 to 6 that he can do so.

A's discards clearly indicate his suit, and Y leads to his declared weakness in spades. B, sure his partner's suit is diamonds, puts up the spade ace at once.

Here is a remarkable example of a judicious trump lead, even in the face of a presumptive signal. A B were A. W. Foster and C. R.

TRICK.	A .	Y	В	z
1	2 •	9 4	K.	8 ♦
2	OK	4.8	Ø 3	♥8
3	20	40	Qó	70
4	♣ J	43	4.5	▲ 6
B	A.	4 .	60	Q .
6	≜ K	48	4 4	410
7	& 2	5 .	AA	♣ Q
8	3 ♦	80	4 9	10
9	7 .	100	47	010
	V 2	8 .	0 5	OA
11	30	10 •	OQ	Ol
	50	AO	Ко	04
13	90	J	07	♥ 6

Trick 2. If A's good suit is spaces, the hands of A-B will obviously be much improved if they can get the trumps out of their way, although it looks as if some one was signalling in spaces. The fall of the 9 from Y prevents A from continuing the trumps, and induces him to lead what must be his partner's suit. This leads B to infer that his partner may have something in clubs.

Tricks 8, 9, 2 gets rid of his losing diamond, and then trumps high enough to shut out any small trump in A's hand. The ending is very curious, and the way Z's hand melts away is certainly remarkable.

On the overplay, B did not lead the trump at trick 2, but led clubs. A finessed the lack, and on his winning he led the king of trumps, which Z returned. After B's queen won, the only, trick A-B made was the spate are, four tricks altogether, a loss of six on the hand.

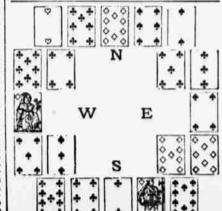
OUR PROBLEMS.

OUR PROBLEMS.

In the perception problem Dec. 20, Yean place Z with queen and another club, B having no more. Z has no more diamonds, and A's return of the jack was evidently to establish the ten. A would have led from five diamonds if he had held them originally, so he cannot have more than two remaining. B's cards must be one diamond and four spades, or two diamonds and three spades, in either case with three trumps. B cannot have held, five trumps originally, or he would have gone on, and the fact that he avoids another lead marks him with a probable senace, so Y may assume the major and minor tenaces to be divided between B and Z. A must have at least the three of trumps.

Y has three lines of play: To force the strong trump hand with the club lack; to lead the supporting spade, or to lead trumps through B. The club lack would lose a trick. In the actual play, Y led the spade, and found his partner with A. Q. 10, 8. The third round caught the king in B's hand. A following suit. Then Z led club queen, forcing B, who returned a diamond, won by A. Z discarding club 7. A led club 10, which brought down three trumps, the 5, J, and Q. Z led trump ace, and A made a trick with the 6. No one solved this problem exactly, but W. L. McGavock of Pulaski, Va. came nearer to tt than any one else.

Hearts trumps, N to lead; N and S to take all five tricks.



THE BERNHARDT'S MEMOIRS HINTS TO WOMEN WHO WANT

BE ACTRESSES.

Rugged Road to the Pince of a Fixed Star-Terrors of an Examination Refore the Conservatoire-"The Two Pigeons," The memoirs of Sarah Bernhardt ought cerainly to be interesting reading. So they are, judging from the following fragments published n the Figure: "Make a fashionable dressmaker of her."

sald imy godfather. "She will be at home among ribbons and chiffons. There is no danger of her going bad; there isn't enough of her." But one of the old friends of my mother, who was then a Minister, thought that the theatre offered some chances of success to me. That was also my mother's opinion. I was not homely. I had a soft voice and pretty teeth that would give me an opportunity to smile. would grow, and put on some flesh, he said, He never imagined, poor man, that my thinness was bound to afford amusement to so many journalists. Finally he concluded that I should be presented to M. Auber. M. de Girardin, who was coming to see my aunt the next

day, would arrange the matter with him. My mother being a stranger, and knowing nothing of what was necessary to do in order to make an actress of me, was obliged to have the thing explained to her in Dutch by my aunt. They spoke rapidly, and for a long time. My godfather and M. X. left the two ladies and commenced to talk in a low tone. I was alone, standing at one extremity of the large room. An indescribable fear came over me. What was the future? The dreams of happiness in the picture danced before my imagination. The ringing laughter of my two young elsters in the adjoining room fell like a flood of sobs into my heart. The hard accents of the Dutch language grated upon my ears, while the mysterious voices of the two men troubled my imagination. I began to The four personages in the scene apcry. proached me.

string. The same was to find our white more recorded in the greateness of the same without restrict the same was to same without restrict the same was to same without restrict the same was to same without restrict the same without restrict the same was to same without restrict the same without restrict the same was to same without restrict the same without restrict the same was to same was to

held in ten days.

"Anything you wish," said he. And he passed on to another.
When I got home I told at the dinner table of my presentation to Auber. There was a lively discussion over what I should learn for my examination. My mother, who spoke

of my presentation to Auber. There was a lively discussion over what I should learn for my examination. My mother, who spoke very little French, did not endeavor to express her opinion. But my young plane instructor, whose father was a celebrated singer, declared that it was necessary to learn some verses.

What should the verses be? That was the subject of discussion while they were playing whist. My gedfather, who was always there when he was not with my sout, declared that it was necessary to learn a fable. This brought in an outery. "A fable at the theatre," they exclaimed. "That would be semething absurd," in a convincing tone he declared that he had heard Mme. Rachel repeat the fable of the Two Pigeons at the Théâtre Français.

"Learn that, my child," said he, "I remember Rachel, and I can give you some noints."

My mother approved; the others became resigned, and it was agreed that I should repeat the fable of the Two Pigeons.

"You have La Fontaine," said my plane mistress. "Hout up the fable and study it."

"That's just it. Let's hear how you read," cried my infernal sodisther

"Ah, let us finish the game first," growled an old friend of mother's, no less brusque and affected. Moreover, he was afflicted with a fearful Bordeaux accent. He made me almost furitious every time that he called me his "Daughter," pronouncing the word as if it were written." Should be supplied to the rarmchairs. My mother took up her embroidery, my sister Jeanne was asleep on the soin, and my godfather put on his spectacles to listen to me. The old fellow coughed to clear my voice, and my plane mistress whispered softly to Comte de K., a handsome young officer, while my genie and beloved governess encouraged me. My aunt fixed the snade of the lamp, to enable me to sneak all the better.

What an evening! My field, it remains in my recollection, the type of everything that is come, barlesque, and indescribable. After five minutes' reading, my godfather and the grouty old fellow began to daugh. My mother, almost choked, it he lou

lamation was finished. I determined to forget as quickly as possible the points that had been given to me.

At last the great day arrived, and this time my mother did not have my hair dressed. I presented myself to the Conservatoire with my hair loose, with the face of a young girl, without bowder, and with the self-possession of a child. A great many young girls were there, beautiful, and charming, in the full blossom of the spring of life, some laughing and talking, others, trembling, and sad. Each one had hope in her heart and fear in hereyes. Among them there were some who were almost fully developed women, and who endeavord to diguise their age. And away back in the dark corners of the walting room, there were a few poor little girls shabbily dressed.

I was accompanied by my aunt; she was nervous and in a bad humor. Immediately formed the acquaintance of an adorable young girl, a living and exquisite Grouze. Her name was Rose Baretta, the sister of Blanche, Mme. Worms, at present member of the Comédie Française. The latter, who was, then quite a little girl, used to play with my sister Jeanne and Marie Samary, two little girls of the same anc. With her clear complexion, reddish hair, and slender form, in her blue linen dress, Rose charmed me. I sat down beside her, and we became friends immediately and forever. Death, which mowed down the poor young woman in the height of her happiness. Was alone able to break our friendship. linked with so many delightful recollections and disappointed hopes. Poor Rose!

When Constant called out my name, I came near runains away in terror. I went into the hall more dead than alive, and stood before a large table, around which several men were chatting and discussing. In the background there was a stand erected, upon which a roung

man, dressed in black, was standing and rolling enormous eyes under great bushy eyebrows. His name was Leotaud, and he is now chief prompter in the nouse of Molière. "What are you going to declaim?" he asked. "The fable of the Two Pigeons," I said, in a

"The fable of the Two Pigeons," I said, in a very low voice,
"What! We don't declaim fables here!" said he ourst out mughing. Ju there the little bell'rang. "Saluts," whispered Leotaud."
I obesed, and my eyes for the first time were fixed upon the areopagus. I began to tremble. What a terrible thing an examination at the Conservatorie is! There is a little cruelty in putting an innocent child, through such an ordeal, and I have often thought that many who possessed real talents must have broken down and been wrecked during that brief examination.

down and been wrecked during that brief examination.

Among those who were gazing at me. I looked for a face that would give me some encouragement. Auber for an instant fixed my attention, but his cruel smile repelled me. He noticed this, and whispered something into the ear of Augustine Brohan, who immediately burst out laughing. Tears came to my eyes, and my sobbing smile sought pity from another face. Camilie Doucet looked pleasantly at me, and encouraged me with a nod of his head, I was saved! I commenced my fable, looking straight into his eyes, and drawing from the benevolence of his expression the courage that I needed so much. I repeated the pretty lines of La Fontaine in one breath. In my excitement my voice found involuntary intonnicas full of tenderness. Again the bell rang and I stopped.

"Do you know anything else, my little one?" asked Auber.

"Yes, I know the scene in 'Agnes,' but not very well."

"Just repeat what you know of it."
I saluted again and, after a few lines, the bell was rung again.
"Salute and retire," said Leotaud.
I did so, and as I was going away Auber "She is pretty, is she not?"

stopped me.

"She is pretty, is she not?" said he, turning to the others.

"A skinned cat!" brutally remarked a gentleman, who kept his hat on his head. It was Beauvalet.

"I'll take her into my class: I'll make some-

"I'll take her into my class; I'll make something out of her!" exclaimed another, with a pale face and luminous white hair. It was Provost.

"Am I received?" I asked with a bound.

"Yes; come kiss me; you have a nice voice and intelligent eyes. You don't know anything, and that makes your case all the more interesting. But you must grow, my little one, because without stature there is no possible chance for success in the line toward which you lean,"

ou lean.
I kined Provost and started off wild with joy

of my eternal gratitude.

I went through its entire course. In the morning at 8 o'cleck I took the lesson in deportment. On, glorious old Eli! What generations of artists he saw! This lesson indeportment was a perfect recreation. Pap Eli renged us in two lines, the little ones in front, the big ones behind.

"One, two, three." And with his hand on his heart Pap Eli need to orr out. "It is there, I am sure it is," and we would all say the same thing, imitating him. My gracious, how comical I, was and charming at the same time. I am sure it face, was ridiculed on account of his hose, that was always crammed with saud, and his frilled cuffs; but he possessed grace and dignity that charmed me. After the recitation together, he took two pupils and made them go through a love scene. Miles. Tortens and Ponsin, the oldest of the morning class, had the task of teaching the newcomers. Jeanne Tortens rehearsed a violent declaration of love to/Syria Ponsin, whorepiled with a gesture, which meant "io away, sir, co away, sir," Then Mile, I can't recollect her name now one of the favorites of Pap Eli, recited an opera comique monologue. The style of resture differed then. Pap Eli made it more brief and more mannered. For a long time I could not find in his indications that charming dignity which he exhibited in his preceding lesson, but later on I knew the reason for this difference, and I admired all the more the excilent professor. The lesson was finished by a courtesy. Oh, what a variety of courtesies there are, and how glad I am that I learned them all! At first there is the respectful courtery to the old dowager. "Madame." It is a long saiute, very low, with downess eves. The left foot, placed forward, should be drawn to the right foot, while the body is raised slowly. I had great difficulty with that courtesy, and I should add that I have sedoom had occasion to practise it except when abroad. The centresy to a flance at the time of his presentation is correct and rather embarrassed. The embarrassment should be seen in t

An American Woman Skater in London.

From the London Field.

The practical use to which the late Prof. Gampee's invention for making sheets of ice has been put has, however, provided facilities with, id not nevelously exist, and these enabled English skaters to receive a visit in April last from Mr. Grenander, the most expert of Swedish skaters, who illustrated the Swedish skyle to perfection. London, at the present moment, has the opportunity of witnessing skating as practised in America, with the additional attraction to the average sightseer of the exponent being a lady. Taking the style to mean the execution of figures witrout much reference to the subsequent maintenance of edge or continuity, it is doubtful if it could be put forward in much more attractive form than by Miss Mabel Davision, the young lady in question, who comes from St. Paul, Minn., where she learned her skating, the development of her present excellence having come about in the last two winters. A professional exhibition necessarily has showy features introduced, and in Miss Davidson's case these assume the shape of dancing on the toes and skipping forward and backward, skating the "tennot" backward, and whirling round in backward loops with the body crouched down close to the ice. But plenty of excellent skating is seen, the lady being a vigorous skater, and very powerful on both edges. Nothing could be better done, in its way, than the spring from inside forward to outside back, and the execution of the grapevine figures, in unison with the waltz music. One of these grapevines has a very boid spread-earle introduced, which is made with submidli go; and into another a curisey, as the feet come together, that has, very pretty effect. Mohawka and double and triple turns are made to perfection, but we saw no sign of rocking or counterrocking turns, or of cross-cuts, though that we cannot say we regretted. We were sorry to learn that the vigor which is infused into the skating, lasting continuously from fitteen to twenty minutes, causes comp

WINTER LIFE ON A PEAK. PERILS THAT SURROUND DWELL-ERS ON MT. WASHINGTON.

The Loneliness of the Signal Service Obsorvers When They Stay at Home, and the Ricks They Take When They Leave It—Adventures in Wind and Ice.

Perhaps there is no resort in the Granite

State that appeals more strongly to almost every visitor to its famous White Mountain region than Mount Washington, its highest peak, and the most tofty mountain but one east of the Rockies. Thousands scale the 6,293 feet to its top every year by means of its cog railroad, and gaze with admiration at the beautiful panorama revealed from its summit. Authentic history states that the peak was first occupied in winter in 1870 by a scientific party, but the winter of the following year was the beginning of the work of the Signal Service weather observers. These hardy fellows took up their residence in an old building, previously used for the storage of the rallroad engines, and hurriedly fitted up for their reception. It was far from being suitable for its purpose, and the dwellers suffered severely from the bitter cold. By the establishment of a station at this elevation it was sought to obtain warning of advancing storms before any premonition of them reached the valleys, but the tests of several years proved fruitless in this respect.

Preparations for the approaching winter were commenced as early as July. During the summer all repairs that were needed on he building were completed, and it was placed in the best of condition to withstand the onslaughts of the winter storms. The heavy wire strands and timbers by which it was braced to the rocks were tested carefully, and replaced wherever faulty, and no efforts were spared to make the structure as secure as pos-One of the first duties of the officials was to make out a list of the provisions needed from Oct. 1, when the trains ceased running, to the last of June, when they were put in

the their the building would yield to the for such as accident we sat around the red het store with our bearded chinne on any class of reaching come offer sheller. How he there were the same of the store with our bearded chinne on any class of reaching some offer sheller. How he had not shown that the same of reaching to make the same of th

slid down the slope of the mountain over the smooth and frozen crust of the snow with a velocity that might land me anywhere. Fortunately, the direction of the wind carried me to the rallroad track with a thump that knocked the breath completely out of me, but hamply, aside from a few bruises, I suffered no injury. I could not stand on my feet, and attempted to turn back to the station, but it was impossible to make any headway against the wind on my hands and knees. I was therefore foreore to continue down the mountain. I was more willing to do this because I felt that a young life depended on my reaching the Gulf House. On my hands and knees I crawled painfully along, and when a gust of more than usual force struck me, was compelled to cling to the timbers of the track or to rocks that projected through the snow to prevent being blown away. My progress was necessarily slow, and by the time I had covered about two-thirds of the distance my woollen gloves were worn through to the fingers. All the latter on my right hand were frostbitten. I hally reached the Gulf House more dead than alive.

"Here a new difficulty presented itself. The building stands about thirty feet from the track, to which I had clung the whole distance down, and the space between that and the house was one, layer of ice. It took me about twenty minutes to cross that space. Sometimes I would almost reach the structure, when a gust of wind would strike me and blow me back against the track. All this time I kept un a shoutins to attract the cook's attention, if he were in the building, but did not succeed, until I finally reached the door and opened it, when I found him walking the floor in a dazed condition from the cold. When I handed him a match to light the kindling that was anyays keet there ready prepared, he could not hold it in his fingers. My own hands were frostbitten, but I finally successed in lighting the fire, and in a short time had the room comfortable and the cook and myself were lost. If we had not taken advantage of the shor

PERCY WINGLE, SNOW SHOVELLER.

dent of Storkville Centre, Vt.

"The only man I ever knew that followed snow shovelling as an occupation the year round," said Col. Calliper, " was an old friend of mine named Percy Wingle, who formerly lived in Storkville Centre, Vt. How Mr. Wingle first came to take up snow shovelling as a business I never exactly knew; whether he drifted into it or whether it was his choice from early inclination, as some young men think they would like to be lawyers, some physicians, and so on. But certain it is that he made of it a lifelong pursuit, and the ability he displayed in his chosen work—he was a snow shovelier without a peer—justified the choice he had made. And while it was not a lucrative calling, as things go, yet I suppose it was satisfaction to him, inwardly, to stand at the head of his profession.

"There's a heap more snow in Vermont than there is here—they have an old-fashioned winter there every year; and for some months in each season Percy had abundant occupation in and about Storkville Centre; but to provide himself with work the year round it was of course necessary that he should extend his field of operations; a fact which Percy himself field of operations; a fact which Percy himself was prompt to recomize. Every spring he turned his face northward. He would shovel through the winter in storkville Centre, making paths to the church, to the schoolhouse; paths for the neighbors and for citizens generally; shovelling down through the deep snow to the ground itself, and leaving there no humps or bumps or ridges along the centre for people to slip upon; making paths such as were a delight to every right-mindel man who leved good work and knew it when he saw it. And then, when March came and the snow waned in Verment, Percy shovelled his way, so to speak, north toward Montreal. In later March he was in Quebec. Thence he went northward through Labrador, shovelling as he went, June would find him in the neighborhood of Hudson Strait, still shovelling, and July and August he spent in Greenland, north of the Arctic circle. He followed the snow.

There is now morthwest through Labradors of the correction of the

ANOTHER POLAR TRIP

A GREAT FRENOR AIR SHIP WO FLOAT FOR SIXTY DAYS,

Andre's Attempt to Be Followed by Godnre-Gigantic Preparations Under Way.

From the Pipuro, After the many others that the North Pole has tempted, two of our sompatriots, not wishing to let France be beaten in a discovery which is bound to remain forever memorable, are organizing an expedition carefully studied, and presenting, as will be seen, every chance of success.

The insurmountable difficulties which navi-

gators of all nationalities have had to contend against in the effort to discover the pole ing it by mean of a specially prepared balloon. Since the time of Gustave Lambert, several French aeronauts have studied, superficially, no doubt, these serial expeditions, but their initiative shared the fate of others bearing the French mark. It was copied by foreigners, Unfortunately for science, their practical knowledge was not equal to their hopes, and the pole still guards its secret. How long will it continue to hold it? Would it not be for this century, so rich in marvellous discoveries, a supreme achievement to pierce the enigma? And should not France, where aerostation was first invented, and where the idea of reaching the pole through the air was first conceived. tricolor flag? The fallure of the André ex-pedition, organized in Sweden with such patris otic enthusiasm, and for which so many sacris fices were made, did not surprise the aeronautic world, in which the general opinion existed that his expedition was insufficiently prepared, and that the required conditions of the balloon imposed by Andre were not sufficient to parry the numerous ricks of a long voyage such, for instance, as the loss of gas, the deformation of the airship, &c. Long experience in aerial voyages and a profound knowledge of the different elements of a balloon were necessary for such an expedition, and M. André possessed neither one nor the other. Consequently, even with favorable winds, he was obliged to give up the attempt, on discovering that the balloon allowed an escape of gas that took from it each day sixty to sixty-five kilogrammes of ascending force.

cape of gas that took from it each day sixty to sixty-five kilogrammes of ascending force. The failure of André, far from discouraging our aeronauts, has only stimulated their seal, and two of them, whose names are a programme of victory, Louis Godard and Edouard Sur youf, are preparing to win for France the paim reserved for the bold who will be the first to reach the pole.

Their project, moreover, does not date from yesterday. It was conrecived in 1893. On the following year the same idea germinated in the brain of the American, Wellmann, an intrepid explorer, who in two successive expesitions, undertaken by land and by water, found himself in the presence of such difficulties that be thought of surmounting them by means of a balloon. Wellmann asked Messrs, Louis Godard and Edouard Surcouf to make a study and a plan of the thing, but the plan was not executed because it was deemed preferable to await the result of the André exisedition.

Now, it is precisely this project, carefully studied, that Godard and Surcouf are determined to realize as soon as possible. The balloon which they are about to construct will be called "La France." It will cube no less than 10,847 metres, and its circumference will be 38 metres. Infasted with pure hydrogen gas, it will have an ascending power of 12,000 kilogrammes. These 12,000 kilogrammes.

Now comes the question, How many days which may be needed, and also the ballast, which will weigh 7,450 kilogrammes.

Now comes the question, How many days will the balloon; be able to soar over the polar seas? It is known that the length of the varnishing which they have adopted and the varnish which they empoy, they have become convinced that the daily loss of gas and be reduced to 0.880 per cent. In order to get below the probabilities, they calculate upon a daily loss of gas flap per cent. A cubic metre of pure, hydrogen gas can rules a weight of 1.1, Ther

MAKING CLOUDS AND RAIN,

An Experiment That Illustrates the Whole Aqueous Circulation of the Air. If anybody would like to produce clouds and rain on a small scale it is easy to do so, accord-ing to Prof. L. Errera, who describes the process in tiel et Terre. He advises that the experiment be made with a cylindrical vase of Bohemian glass about 8 inches in height and 5 inches in diameter. It should be filled half full of strong alcohol, about 92 per cent. pure, covered with porcelain saucer, and warmed in a hot-water bath. It must be warmed for quite a while, so that the liquid, wase, and cover may attain a high temperature without bringing the alcohol to the nealing point. Then the whole should be removed to a wooden table, taking care not to agitate the fluid, and results may be awaited.

The warm liquid will continue to send up an abundance of a cochole vapors. In a few minutes the porcelain cover will be so far cooled that the vapors nearest to it will begin to condense, and thus very clearly visible clouds will be formed. Presently these clouds will be formed. Presently these clouds will be resolve themselves into tiny droplets of rain, which will fall vertically into the liquid. There will be countless numbers of these raindrops, and the interesting spectacie may go on for a half hear.

At first the vapors will rise quite up to the percelain cover, but as the whole cools the condensation will occur at a lower lever. Then there will be a perfectly clear rains above the cloud zone, and nature will be exactly repreduced, except that in the place of where everything is made of alcohol. The clear since above will represent the piece sky, below which are the clouds, condensing into rain, which is returned to the liquid, representing the ocean, from which it came. Thus this experiment illustrates in miniature the whole aqueous elections of the atmosphere. temperature without bringing the alcohol to the